

The **forest fires risk** in my municipality



RECOMMENDATIONS & KEY POINTS
aimed at the municipal technical services

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A SHORT DESCRIPTION OF FOREST FIRES

3 INTERVENTION'S PHASES

In Mediterranean forest areas, forest fires represent a very frequent natural phenomenon which, depending on the weather conditions and intensity of the flames, can quickly get out of control and pose a serious problem to firefighters.

Every year, thousands of hectares of forest go up in smoke, and fires can also destroy property and pose a threat to human life.

A forest fire is a complex event which is intricately linked to local conditions (topography, weather and vegetation), and any change on those conditions will affect also the fire behaviour.

Despite all the efforts made in terms of prevention and firefighting techniques, certain weather situations turn into large-scale fires requiring numerous firefighting resources in order to protect sensitive zones and evacuate people from the areas concerned.

Local council technical services can take action or raise awareness among the local population, according to the three distinct phases that characterise forest fires.

BEFORE→ DURING→ AFTER

PHASE
1

PREVENTION



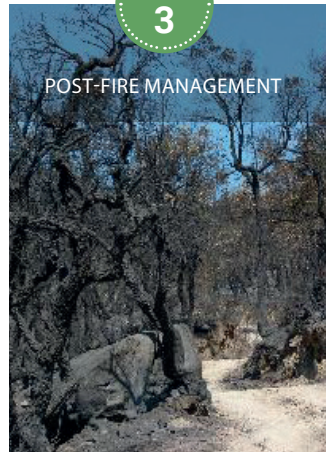
PHASE
2

CRISIS MANAGEMENT



PHASE
3

POST-FIRE MANAGEMENT

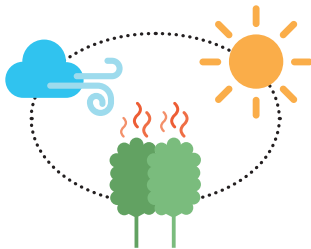


WHY ARE MEDITERRANEAN FOREST AREAS PARTICULARLY PRONE TO FIRES?

The forest has adapted to the climatic conditions of the Mediterranean region. Consequently, it undergoes frequent periods of serious drought, leading to significant water stress for plants.

The presence of dry combustible vegetation in the forest and the heat of the summer months, combined with some very windy days, are the main factors that determine the way fire spreads.

In such conditions, even the slightest spark can start a fire and result in a destructive forest fire.



WHAT ARE THE CAUSES OF FOREST FIRES?

Lightning is the only natural cause, but in reality only a very small percentage of fires are actually caused by this. However, most fires are caused by humans and its activities.



X% ACCIDENTAL

X% NEGLIGENCE

X% NATURAL (LIGHTNING)

X% INVOLUNTARY

X% DELIBERATE



Place here your own %.

A QUICK EXPLANATION OF KEY TERMS

A **"risk"** is a natural phenomenon with a given probability and intensity.

"Elements" refer to the property, people and forest land that are exposed to this hazard.

"Defensibility" refers to the defence equipment available and the context in which the defensive action must be taken.

"Vulnerability" is a means of expressing the defensibility of a sector and the exposed elements.

$$\text{HAZARD} \times \text{VULNERABILITY} = \text{RISK}$$

WHAT ARE THE RISKS FOR THE FOREST?

Fire is part of the Mediterranean forest's life cycle, but the fact that this natural phenomenon has been exacerbated (due to climate change and frequent severe fires) could significantly alter the landscape and reduce the forest's ability to recover and regrow.

AND FOR PEOPLE?

When a forest fire reaches a certain level of intensity and spreads at a certain speed, it poses a serious threat to people. Hikers, local residents and people driving through the area can all find themselves trapped by fire.

Each emergency situation is unique, reason why it is important to be aware of certain rules in order to anticipate and counteract a crisis situation as effectively as possible.

HOW CAN I REDUCE THE RISK TO RESIDENTIAL AREAS IN MY MUNICIPALITY?

Avoid any fire. Naturally, this is the best strategy, and in order to achieve it, the main focus should be on informing people and raising awareness among local residents about the risks inherent to all types of fire (carelessness, building work, cigarette butts and so on). These measures help to reduce forest fires, but in any case will suppress it at all, because of the natural and accidental causes, fire will still get presence in a territory.

Reinforce the defensibility of residential areas to limit the damage caused and ensure that firefighters can focus exclusively on putting out the fire. Efforts in this regards are focused on improve the home's protection and its surroundings, as well as the basic infrastructures supporting the suppressions tasks (accessibility, road signs, hydrants nets).

Build up a risk culture to ensure that all stakeholders at all levels of society are aware of the risks responsibilities posed by fire in the Mediterranean region.



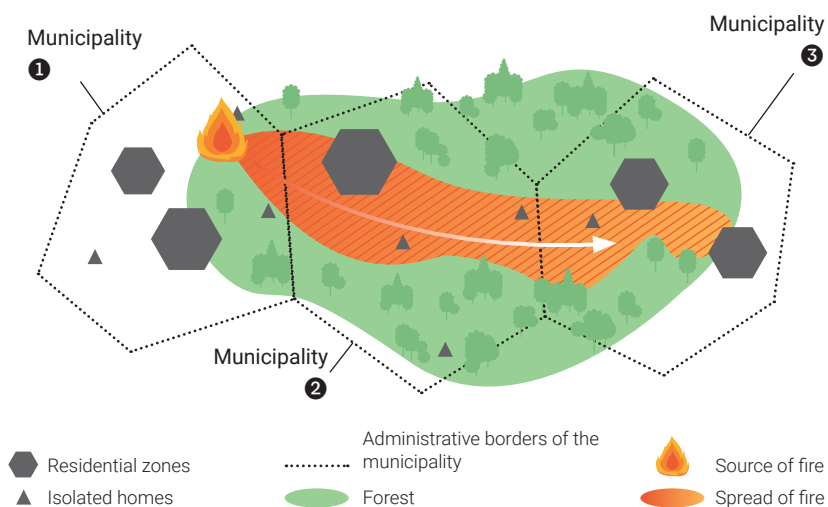
FIRE RISK IN MY MUNICIPALITY

Place here a brief introduction about the mains risks areas in your own contry.

FULLY UNDERSTAND THE PHENOMENON TO ANTICIPATE THE RISKS EFFECTIVELY!

Wildfire does not stop at administrative and geographical borders: the notion of fire risk must therefore be considered with respect to the municipality's location within a given risk area.

A "risk area" refers to an homogeneous geographical entity that is subject to a natural phenomenon. This scale of reference is fundamental, as it enables us to study phenomena as a whole and in the context of their physical reality, beyond the notions of administrative borders, which hinder our analysis.



It is important to consider the land covered by a municipality in the context of a given risk area.

HELPFUL HINTS:

Depending on your municipality's level of exposure to fire risk, a number of documents and information sources can help local council technical services deal with the phenomenon as effectively as possible.

EXTRA MUNICIPAL ANALYSIS

Place here a brief 2 sentences to introduce the map of your areas .

Place here a map of the regional level showing the number and the surface burnt by forest'sfire in each sub administrative levels

Several documents are available to raise awareness and understand the actions to be implemented to counteract fire risks.

TITLE
//////

Place here a brief description of a document related with the forest's fire risk at the administrative level concerned

 **More informations :**
[web site]

TITLE
//////

Place here a brief description of a document related with the forest's fire risk at the administrative level concerned


 **More informations :**
[web site]

MUNICIPAL LEVEL :

////////////////////////////////////

Analysis of previous fires which have had an impact on the land covered by the municipality is important in terms of understanding the phenomenon and drawing up a comprehensive strategy for forest areas. In some regions, the fire prevention agencies have mapped the historical wildfire occurred on latest years.

Firefighters services have analyzed each historical fire in the highest risk areas, in order to establish and define proactively the suppression strategies and measures more efficient in each case.

 **More informations :**
[web site]



TITLE



Place here a brief description of a document related with the forest's fire risk at the municipal level



TITLE



Place here a brief description of a document related with the forest's fire risk at the municipal level



TITLE



Place here a brief description of an organization related with the forest's fire risk surveillance

BE AWARE OF REGULATORY MEASURES

In addition to documents that provide information and details of operational preparations, there are a number of regulatory measures in place concerning the prevention and protection of wildfire risk.

Local council technical services, responsible of informing the local population about these measures, must be fully aware of the regulations in order to provide adequate technical resources, interpret public authority rules correctly and ensure the right message gets across to the people concerned.

HELPFUL HINTS!

The regulatory measures concerning the protection of citizenship and their infrastructures from fire risk are published in the form of various technical documents available for consultation by municipalities and their inhabitants. These documents are divided into three major topics:



PROTECTION OF FOREST OR PROTECTION OF HOMES?

It is important to understand how fire protection measures concerning forest areas, and actions aimed at protecting the people and property within those areas, are all interlinked.

FOREST FIRES PREVENTION MEASURES

Certain fire prevention measures must be fully known and understood in order to provide an appropriate answer to the needs and expectations of local residents and stakeholders.

These measures include the forest massif management actions such as the construction of tracks, water sources or zones where the forest has been thinned or cleared. The aim of these actions is to enable firefighting services to operate safely to limit the spread of fire.

REMINDER

The work carried out in the framework of a risk area protection strategy must first be agreed by elected representatives, forest rangers and firefighting services after a period of consultation, to ensure maximum protection of the forest land. Collective efforts based on consultation are most likely to result in effective actions that are fully supported by all the stakeholders involved.



In the event of a forest fire, firefighters must first and foremost ensure the protection of people and property. Depending on the areas concerned, these actions require a significant number of firefighting resources which must be readily available.

Any resources used to protect homes are no longer available to fight the fire spreading into the forest and bring it under control!

It is therefore vital that the self-protection of residential areas exposed to fire risk is achieved using as few emergency resources as possible, so that maximum effort is given over to fighting and controlling the wildfire.

In addition, in cases of large-scale, highly intensity fires, firefighters are unable to defend all the sensitive zones. This is why the notion that buildings must be autonomously fire-resistant via rigorous clearance of excess vegetation and the use of appropriate building materials is strongly recommended in order to ensure a minimum level of safety while waiting for the emergency services.



WATER TANK

Date

Picture caption

Example of behavior of large-scale, highly destructive fire on which firefighters have to focus their efforts to protect first houses and evacuate people

IMPORTANT

- **Contact the services responsible** for coordinating prevention actions within your département and municipality.
- **Consult the relevant websites** to be aware of fire risks.
- **Encourage consultation** between elected representatives/technicians/ government departments/Publics authorities/firefighters.

REDUCE THE VULNERABILITY OF RESIDENTIAL AREAS IN MY MUNICIPALITY

Municipalities exposed to fire risk, must be taken into account the risk level and its characteristics when drawing up a urban planning document. must be taken into account in town planning documents. The plan produced is divided into different levels depending on the degree of risk exposure, the size of the municipality, other projects already in place amongst other parameters.



TITLE

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Place here a brief description of a document related with the awarness of forest fires risk in urban planning documents

In addition to plans and urban planning documents, residents can contact their local council technical services if they have specific questions. These services can put them in contact with the relevant authorities if need.

As part of this approach, dialogue between local inhabitants and the municipality can be reinforced by the appointment of a person in charge of these issues, who is trained in specific aspects related to forest fires.



WHAT YOU NEED TO KNOW

Local residents who want to evaluate the vulnerability level of their homes have to take account of several parameters.



The density of housing and the location with respect to the forest is important because these factors can determine the volume of vegetation available to sustain the fire. A greater number of neighbouring properties means less space for vegetation.

To ensure that buildings offer maximum protection to their inhabitants in the event of wildfire, it is vital that they do not allow flames or embers to enter via doors, windows, verandas or roofing. It must therefore be possible to seal all the openings to a home with materials that are highly resistant to the extreme heat produced by fire.

It is essential to ensure that your home is accessible:

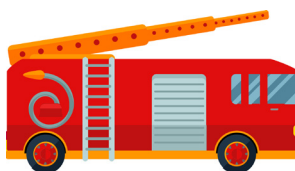
- so that firefighters can intervene quickly, in adequate conditions.
- in the event that houses have to be evacuated.

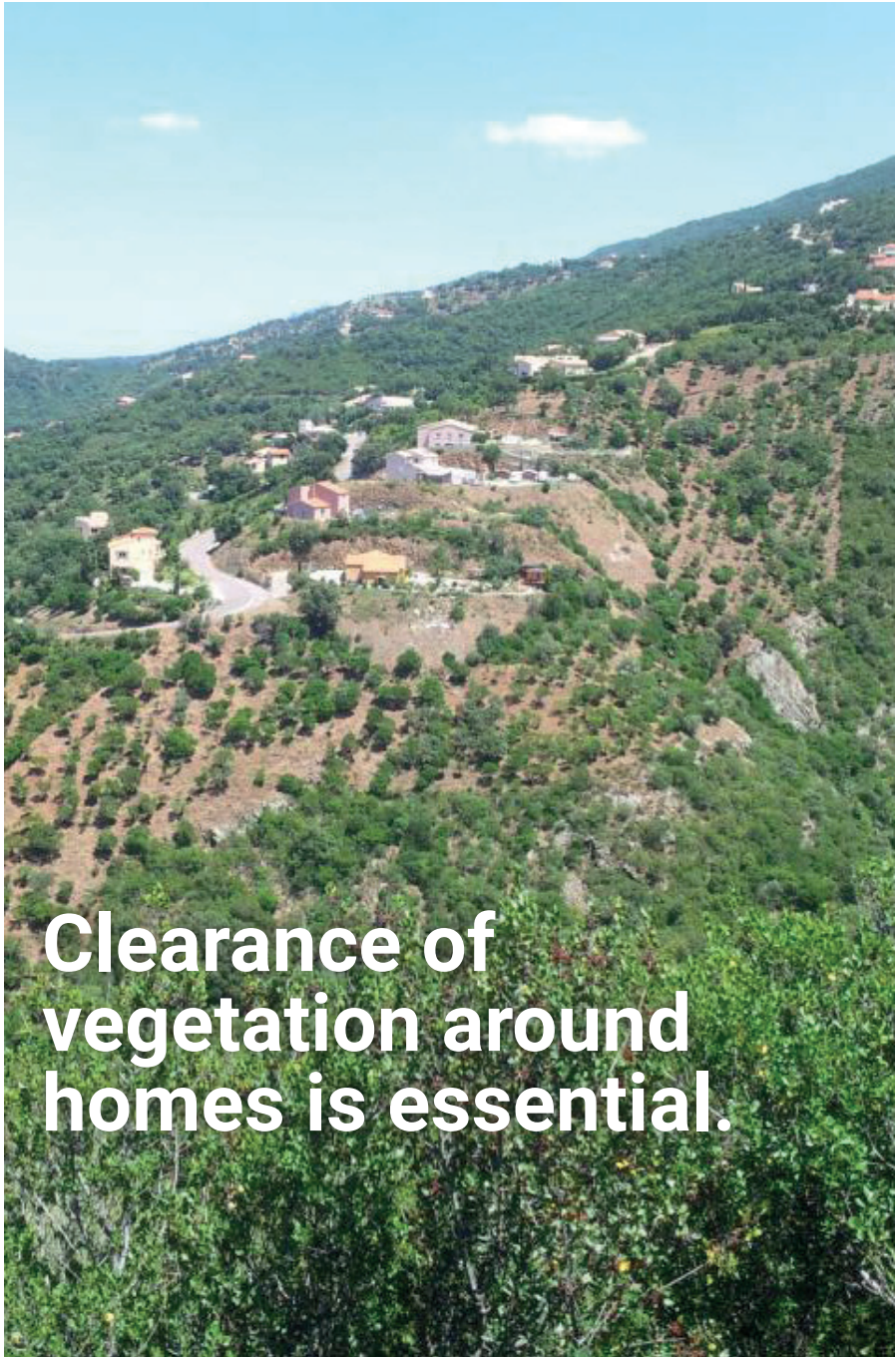
In this respect, a number of features

are important in safety terms: width of driveways and the fact that they are not obstructed, sufficient space for two vehicles to pass or make a U-turn.

These elements enable municipalities to classify the importance of different situations, make an initial assessment of the vulnerability level of wildland-urban interface areas and issue basic advice.

For complex situations or if you require further information, please contact with the specialised experts in the field of fire protection measures.





**Clearance of
vegetation around
homes is essential.**

Please consult the next page →

THE IMPORTANCE OF VEGETATION CLEARANCE AROUND THE HOME

WHAT DO WE MEAN BY CLEARANCE?

Clearance consists in reducing the amount of combustible vegetation – of all types – in order to limit the intensity and spread of fire.

Clearance operations should ensure that there are enough breaks in the vegetation so that the landscape is not fully covered.

WHY IS CLEARANCE IMPORTANT?

By clearing and thinning the vegetation around their homes, residents enable firefighters to intervene more effectively and in safer conditions. Clearance also reduces the intensity of the fire, and as a result, home's protection would be safer and successfully.

WHO IS RESPONSIBLE FOR CLEARANCE, AND OVER WHAT EXTENSION?

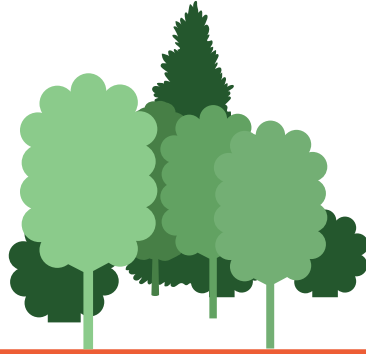
The extent of the defensible space to be cleared by homeowner at risk, can vary depending on the region, however it is quite common the needed defensible space comprises neighbours properties. In these situations the vegetation treatments could result on extra efforts, due to possible interest conflicts between landowners. Municipality's technicians are well positioned to deal with and propose an voluntary agreed

Local council technical services need to be fully familiar with the regulations and meaning of official documentation issued by the authorities in order to discuss these matters with local residents.



HELPFUL HINTS!

Please consult the websites of the relevant departments within the various institutions in charge of these issues, to find a solution to the different situations encountered in your municipality.



MESSAGES TO BE CONVEYED

- 1 By reducing the amount of combustible vegetation**
via clearance operations, I make sure that my home is protected and I help to protect the forest.

- 2 THIS DOCUMENT WILL BE
ADDRESSED TO LOCAL
COUNCIL TECHNICIANS:
PLEASE LEAVE ANY
MESSAGES YOU WISH TO
SUBMIT TO THEM**

- 3**

PREVENTIVE ACTIONS CARRIED OUT BY THE MUNICIPALITY TO RAISE AWARENESS AND PROVIDE INFORMATION

PUBLIC MEETINGS ORGANISED BY THE MUNICIPALITY

Holding public meetings within the municipality to discuss forest fires and their consequences, preventive actions or contingency plans in the event of a crisis can be an effective way of getting everyone involved in the issue of fire prevention in the municipality.

Verbal accounts of past events and a focus on the local context provide real added value to any communication initiative and reinforce the impact of the messages conveyed. Here again, you can enlist the help of specialised technicians from government departments or firefighters.

TOWN HALL INFORMATION BOARDS AND DAILY INFORMATION ABOUT THE RISK LEVEL

For information: activity and movement within forest areas are often conditioned by the daily risk level, in order to:

- Limit the risk of fires being started by people in forest areas

- Avoid putting people in dangerous situations

During the summer, the Met Office can provide a daily assessment, for each meteorological area, of the risk level, based on a set of criteria related to weather conditions and how dry the vegetation is at a given time.

To find out the daily risk level for your municipality, you can consult the official websites which give the risk levels for each meteorological area.

Based on these official sources, and depending on the resources provided by your municipality (town hall display board, digital information board, municipality website and so on), you can pass on this information to your local residents and play your part in conveying prevention messages

TITLE

THIS DOCUMENT WILL BE ADDRESSED TO LOCAL COUNCIL TECHNICIANS: PLEASE LEAVE ANY ADVISES YOU WISH TO SUBMIT TO THEM



SELF-ASSESSMENT GUIDE FOR RESIDENTS

The self-assessment sheet aimed at local residents can be consulted and downloaded free of charge from the project's website.

<http://efirecom.ctfc.cat>



RELATED WEBSITES:

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**Provide a list of the websites
that can be consulted for
reference**

Children of all ages can understand the way **fire** works

Fire risk is an integral part of life in the Mediterranean region.

All areas can be subject to the risk of wildfire.

In order to live in these areas safely and without fear, everyone must be aware of the potential risks and know which practices to avoid and which protection measures to implement in and around their home.

All of this begins at a very early age.



Get to know Baby Burn and Fierce Flame and download their story here: <http://efirecom.ctfc.cat> and www.lessonsonfire.eu

This publication has been developed in the framework of the 2014/PREV/13 "Efficient fire risk communication for resilient societies" (eFIRECOM) project, co-funded by the European Civil Protection and Humanitarian Aid Operations (DG-ECHO). The aim of the project is to improve information and knowledge transfer of wildfires to society and promote a culture of the risk. This publication is available in five languages (English, Catalan, Spanish, French and Arabic) and can be downloaded at the following links:

<http://efirecom.ctfc.cat> and www.lessonsonfire.eu